

LISTING OF CLAIMS

1-23. (Canceled)

24. (Currently Amended) A method of detecting a species of *Fusarium solani* (SEQ ID NO: 6) or *Fusarium moniliforme* (SEQ ID NO: 7) in a sample, comprising contacting the sample with a nucleic acid probe consisting essentially of 10 to 50 consecutive nucleotides that selectively hybridizes with a nucleic acid having a sequence as set forth as SEQ ID NO: 6 or SEQ ID NO: 7, SEQ ID NO: 49, SEQ ID NO: 50 or SEQ ID NO: 51 or the complement a complementary sequence thereof; wherein hybridization of the nucleic acid probe with the sample indicates the detection of the the species of *Fusarium* species in the sample.

25-29. (Canceled)

30. (Currently Amended) The method of Claim 24, wherein the probe selectively hybridizes with a *Fusarium solani* nucleic acid of sequence set forth as SEQ ID NO: 6, or the complement a complementary sequence thereof, and wherein the species of *Fusarium* is *Fusarium solani*.

31. (Currently Amended) The method of Claim 24, wherein the probe selectively hybridizes with a *Fusarium moniliforme* nucleic acid of sequence set forth as SEQ ID NO: 7, or the complement a complementary sequence thereof, and wherein the species of *Fusarium* is *Fusarium moniliforme* in the sample.

32-46. (Canceled)

47. (Currently Amended) An isolated nucleic acid probe for identifying a member of a *Fusarium* genus, wherein the probe consists essentially of a nucleotide sequence as set forth as SEQ ID NO: 59, or a ~~complementary sequence~~ the complement thereof, respectively.

48. (Canceled)

49. (currently amended) A method for detecting a member of a *Fusarium* genus in a sample, comprising
combining the sample with a nucleic acid probe that selectively hybridizes with a ~~portion of the~~ a nucleic acid consisting of a sequence set forth as of SEQ ID NO: 59, or the complement ~~a complementary sequence~~ thereof, respectively, wherein hybridization of the probe with the sample indicates the presence of *Fusarium* in the sample.

50. (Canceled)

51. (Currently Amended) An isolated nucleic acid probe ~~that hybridizes to an internal transcribed spacer 2 region of a *Fusarium* species, wherein the probe consists essentially~~ consisting of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 49, SEQ ID NO: 50, or SEQ ID NO: 51, ~~and wherein the probe does not hybridize to the internal transcribed spacer 2 nucleic acid sequence of *Aspergillus flavus* (SEQ ID NO: 1), *Aspergillus fumigatus* (SEQ ID NO: 2), *Aspergillus niger* (SEQ ID NO: 3), *Aspergillus terreus* (SEQ ID NO: 4), *Aspergillus nidulans* (SEQ ID NO: 5), *Mucor rouxii* (SEQ ID NO: 8), *Mucor racemosus* (SEQ ID NO: 9), *Mucor plumbeus* (SEQ ID NO: 10), *Mucor indicus* (SEQ ID NO: 11), *Mucor circinelloides f. circinelloides* (SEQ ID NO: 12), *Rhizopus oryzae* (SEQ ID NOs: 13 and 14), *Rhizopus microsporus* (SEQ ID NOs: 15 and 16), *Rhizopus circinans* (SEQ ID NOs: 17 and 18), *Rhizopus stolonifer* (SEQ ID NO: 19), *Rhizomucor pusillus* (SEQ ID NO: 20), *Absidia eorymbifera* (SEQ ID NOs: 21 and 22), *Cunninghamella elegans* (SEQ ID NO: 23), *Pseudallescheria boydii* (teleomorph of *Seedosporium apiospermum*) (SEQ ID NOs: 24-27), *Penicillium notatum* (SEQ ID NO: 28), or *Sporothrix sehenkii* (SEQ ID NO: 29).~~

52. (Currently Amended) The isolated nucleic acid probe of Claim 51, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 49.

53. (Currently Amended) The isolated nucleic acid probe of Claim 51, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 50.

54. (Currently Amended) The isolated nucleic acid probe of Claim 51, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 51.

55. (Currently Amended) The method of Claim 24, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 49, and where the species of *Fusarium* is *Fusarium moniliforme*.

56. (Currently Amended) The method of Claim 24, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 50, and where the species of *Fusarium* is *Fusarium oxysporum*.

57. (Currently Amended) The method of Claim 24, wherein the probe consists ~~essentially~~ of a nucleic acid sequence having a sequence as set forth as SEQ ID NO: 51, and where the species of *Fusarium* is *Fusarium solani*.

58. (previously presented) An isolated nucleic acid sequence comprising a sequence as set forth as SEQ ID NO: 6 or SEQ ID NO: 7.

59. (previously presented) An isolated nucleic acid sequence consisting essentially of a sequence as set forth as SEQ ID NO: 6 or SEQ ID NO: 7.

60. (New) The isolated nucleic acid of claim 58, comprising a nucleic acid sequence set forth as SEQ ID NO: 6.

61. (New) The isolated nucleic acid sequence of claim 58, comprising a nucleic acid sequence set forth as SEQ ID NO: 7.

62. (New) The isolated nucleic acid of claim 59, consisting of a nucleic acid sequence set forth as SEQ ID NO: 6.

63. (New) The isolated nucleic acid of claim 59, consisting of a nucleic acid sequence set forth as SEQ ID NO: 7.

64. (New) The isolated nucleic acid probe of claim 51, wherein the probe is labeled.

65. (New) The isolated nucleic acid probe of claim 64, wherein the label is a radioactive label, an enzymatic label or a fluorescent label.

66. (New) The method of claim 24, wherein the probe is labeled.

67. (New) The method of claim 66, wherein the label is a radioactive label, an enzymatic label or a fluorescent label.